

10/676,613

H1915

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

1. (Original) A system that produces a reticle, comprising:  
a fabrication device; and  
a regulation component that receives reticle inspection data from the fabrication device and utilizes the data to facilitate adjusting control parameters of the fabrication device to improve reticle fabrication by mitigating defects associated with delay times.
2. (Original) The system of claim 1, further comprising a collection component that receives data sent from the fabrication device.
3. (Original) The system of claim 1, the regulation component employing at least one of an advanced process control system, a statistical process control system, a feedback system, a feed forward system, a proportional-integral-derivative control system and a fuzzy logic control system.
4. (Original) The system of claim 1, the fabricating device further fabricating at least one of a semiconductor and a substrate.
5. (Currently amended) The system of claim [[1]] 2, the collection component employing an algorithm to process received data.
6. (Currently amended) The system of claim [[4]] 5, the algorithm being a data-mining algorithm comprising at least one of: a neural network, evolutionary programming, memory based reasoning, a decision tree, a genetic algorithm a nonlinear regression and a Bayseian Bayesian belief networks.
7. (Original) The system of claim 1, the fabrication device employed to perform at least one of the steps of expose, post-expose bake, develop and inspection.

10/676,613

H1915

8. (Original) The system of claim 1, the reticle comprising at least one of a resist, an opaque metal film and a glass substrate.
9. (Currently amended) The system of claim ~~[[7]]~~ 8, the resist being at least one of a PMMA, an EBR-9, a PBS, a ZEP 520-12, an AZ5206, an APEX-E, an UV-5, a SAL-601, an UVN2, an UVN30, a NEB-31, a COP and a SAL-606 electron beam resist.
10. (Currently amended) A system that fabricates a reticle, comprising:  
an expose component that writes critical dimensions onto the surface of a resist employed in the fabrication of the reticle;  
a develop component to process the resist;  
an inspection component to insure the critical dimensions fabricated on the reticle are not outside of desired tolerances;  
a data collection component that receives data from the expose component, ~~[[the]]~~ a post-expose bake component, the develop component and the inspection component;  
a data processing component that determines what changes are needed to the system to improve reticle fabrication to fall within desired tolerances; and  
a feedback/feed forward control component to facilitate changes needed as determined by the data processing ~~component~~ component, the feedback/feed forward control component is an advanced process control system.
11. (Currently amended) The system of claim ~~[[10]]~~ 10, further comprising a post-expose bake component.
12. (Currently amended) The system of claim 10, the inspection component comprises at least one of a scatterometry system, an ellipsometry system, a laser displacement system, an inductive system and a capacitive system.
13. (Canceled)

10/676,613

H1915

---

14. (Currently amended) The system of claim ~~[[13]]~~ 10, the advanced process control system further comprising at least one of run-to-run control and fault detection and classification control.

15. (Original) The system of claim 10, the data processing component is a data-mining algorithm.